

Western Electric Co., Incorporated,  
Engineering Dept.,  
New York.

(2 Pages) Page #1.  
Issue 1 - BT-431720.  
April 5, 1921.

#### METHOD OF OPERATION

##### TRIPPING CIRCUIT

Arranged To Trip Machine Ringing - Before Operator Listens In - "A" Positions  
Switchboard - Full Mechanical Power Driven System.

#### GENERAL DESCRIPTION

1. This circuit is used to trip the machine ringing current on calls incoming to a zero and intercepting operator. It is so arranged that the telephone circuit is not connected to the cord circuit until after the ringing has been tripped.

#### DETAILED DESCRIPTION

#### OPERATION

2. When the talking key in a zero and intercepting operator's cord circuit is operated on an intercepted call, ground is connected to lead C operating the TR relay. The TR relay operated, closes a circuit operating the C relay on the first closure of the interrupter, from battery through the winding of the relay, break contact of the C-1 relay, contacts of the 149 type interrupter (which has a .2 second make and a .2 second break) make contact of the TR relay, break contact of the CO relay, to ground over lead D. When the interrupter breaks its contact, the short circuit is removed from the winding of the C-1 relay which now operates in series with the C relay to the same ground over lead D. The C-1 relay operated, connects one winding of the CO relay to the interrupter contacts, operating the CO relay to ground on lead D on the second closure of the interrupter. The CO relay operated, connects ground to lead CO-1 operating two relays in the cord circuit, and locks through its outer winding and make contact over lead D. The CO relay operated, also opens the circuit through the C and C-1 relays, releasing the relays. The operation of the relays in the cord circuit, connects a resistance across the tip and ring of the cord, tripping the ringing current and cuts in the operators telephone circuit. When the talking key is released, the TR and CO relays release restoring the circuit to normal.

3. On zero and two number calls the CO relay operates when the answering cord is inserted in the jack of the calling line, thus preventing the operation of the C and C-1 relays.

(2 Pages) Page #2.  
Issue 1 - BT-431720.  
April 5, 1924.

CIRCUIT REQUIREMENTS

	<u>OPERATE</u>	<u>NON-OPERATE</u>	<u>RELEASE</u>
B10 (TR)	Test .056 amp. Readj. .025 amp.		Test .002 amp. Readj. .004 amp.
E214 (C-1)	Test .018 amp. Readj. .015 amp.	Test .0095 amp. Readj. .010 amp.	
E484 (C)	Test .020 amp. Readj. .014 amp.		Test .001 amp. Readj. .002 amp.
E658 (CO) Inner winding 500 ohms	Test .031 amp. Readj. .023 amp.		Test .0038 amp. Readj. .004 amp.
Outer winding 500 ohms	Hold. Test .035 amp.		